

### pcDNS3.1hyg/ECD-PD expression

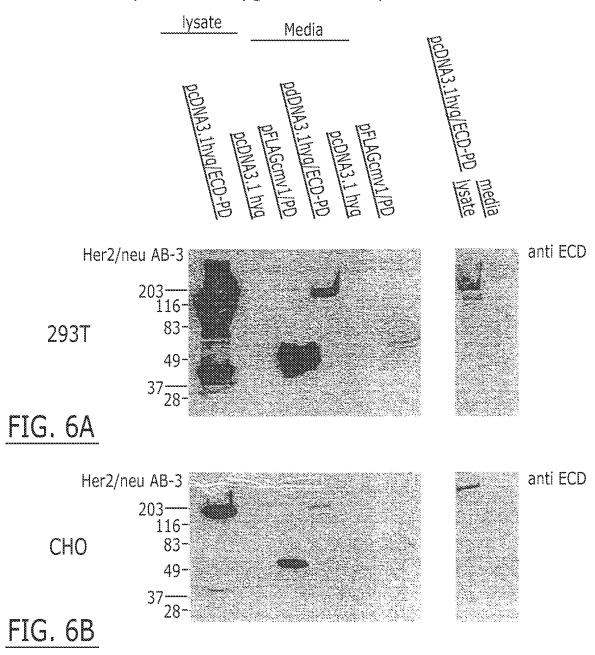


Fig. 7a (SEQ ID NO:1)

Ala Thr Glu	Glu Ser His Leu Gly	Thr Leu Thr	Gln Asp Tyr	Val Met Leu	Cys Leu Pro	Thr Arg Thr	Gly His Asn	Thr Leu Ala	Asp Tyr Ser	Met Gln Leu	Lys Gly Ser	Leu Cys Phe	Arg Gln Leu	Leu Val Gln	Pro Val Asp	Ala Gln Ile	Ser Gly Gln	Pro Asn Glu	Glu Leu Val	20 40 60 80 100
Asp Gln Leu	Val Pro Leu Cys Thr	Leu Arg Tyr	Asn Ser Gln	Asn Leu Asp	Thr Thr Thr	Thr Glu Ile	Pro Ile Leu	Val Leu Trp	Thr Lys Lys	Gly Gly Asp	Ala Gly Ile	Ser Val Phe	Pro Leu His	Gly Ile Lys	Gly Gln Asn	Leu Arg Asn	Arg Asn Gln	Glu Pro Leu	Leu Gln Ala	120 140 160 180 200
Ala Ala Ser	Ser Gly Ala Gly Met	Gly Gly Ile	Cys Cys Cys	Ala Thr Glu	Arg Gly Leu	Cys Pro His	Lys Lys Cys	Gly His Pro	Pro Ser Ala	Leu Asp Leu	Pro Cys Val	Thr Leu Thr	Asp Ala Tyr	Cys Cys Asn	Cys Leu Thr	His His Asp	Glu Phe Thr	Gln Asn Phe	Cys His Glu	220 240 260 280 300
Glu Val Ile	Asn Val Cys Gln Asp	Thr Tyr Glu	Ala Gly Phe	Glu Leu Ala	Asp Gly Gly	Gly Met Cys	Thr Glu Lys	Gln His Lys	Arg Leu Ile	Cys Arg Phe	Glu Glu Gly	Lys Val Ser	Cys Arg Leu	Ser Ala Ala	Lys Val Phe	Pro Thr Leu	Cys Ser Pro	Ala Ala Glu	Arg Asn Ser	320 340 360 380 400
Asp Tyr Leu	Thr Leu Ser Gly Trp	Ser Leu Ser	Val Thr Gly	Phe Leu Leu	Gln Gln Ala	Asn Gly Leu	Leu Leu Ile	Gln Gly His	Val Ile His	Ile Ser Asn	Arg Trp Thr	Gly Leu His	Arg Gly Leu	Ile Leu Cys	Leu Arg Phe	His Ser Val	Asn Leu His	Gly Arg Thr	Ala Glu Val	420 440 460 480 500
Trp Val Leu	Asp Gly Glu Pro Asp	Pro Glu Cys	Gly Cys His	Pro Arg Pro	Thr Val Glu	Gln Leu Cys	Cys Gln Gln	Val Gly Pro	Asn Leu Gln	Cys Pro Asn	Ser Arg Gly	Gln Glu Ser	Phe Tyr Val	Leu Val Thr	Arg Asn Cys	Gly Ala Phe	Gln Arg Gly	Glu His Pro	Cys Cys Glu	520 540 560 580 600
Gly Gly Ile	Ser Ala Cys Leu Ile	Cys Pro Leu	Gln Ala Val	Pro Glu Val	Cys Gln Val	Pro Arg Leu	Ile Ala Gly	Asn Ser Val	Cys Pro Val	Thr Leu Phe	His Thr Gly	Ser Ser Ile	Cys Ile Leu	Val Ile Ile	Asp Ser Lys	Leu Ala Arg	Asp Val Arg	Asp Val Gln	Lys Gly Gln	640 660 680
Arg Pro Pro	Pro Lys Asp Lys Val	Val Gly Ala	Lys Glu Asn	Val Asn Lys	Leu Val Glu	Gly Lys Ile	Ser Ile Leu	Gly Pro Asp	Ala Val Glu	Phe Ala Ala	Gly Ile Tyr	Thr Lys Val	Val Val Met	Tyr Leu Ala	Lys Arg Gly	Gly Glu Val	Ile Asn Gly	Trp Thr Ser	Ile Ser Pro	740 760 780

Fig. 7b (SEQ ID NO:1)

	Tyr Gly Leu Asn	_			_			_			_	_	_		_			
Ile Thr	His Arg Asp Phe Lys Val	Gly	Leu	Ala	Arg	Leu	Leu	Asp	Ile	Asp	Glu	Thr	Glu	Tyr	His	Ala	Asp	880
Lys Pro Leu Pro Ile Asp	Ser Asp Tyr Asp Gln Pro Ser Glu Pro Gln	Gly Pro Cys	Ile Ile Arg	Pro Cys Pro	Ala Thr Arg	Arg Ile Phe	Glu Asp Arg	Ile Val Glu	Pro Tyr Leu	Asp Met Val	Leu Ile Ser	Leu Met Glu	Glu Val Phe	Lys Lys Ser	Gly Cys Arg	Glu Trp Met	Arg Met Ala	940 960 980
Glu Glu Gly Met Leu Gly	Thr Phe Tyr Leu Val His Leu Glu Ser Asp	Val His Pro	Pro Arg Ser	Gln His Glu	Gln Arg Glu	Gly Ser Glu	Phe Ser Ala	Phe Ser Pro	Cys Thr Arg	Pro Arg Ser	Asp Ser Pro	Pro Gly Leu	Ala Gly Ala	Pro Gly Pro	Gly Asp Ser	Ala Leu Glu	Gly Thr Gly	1040 1060 1080
Pro Ser Asn Gln Arg Pro	Thr His Glu Thr Pro Asp Ala Gly Asp Val	Asp Val Ala	Gly Arg Thr	Tyr Pro Leu	Val Gln Glu	Ala Pro Arg	Pro Pro Pro	Leu Ser Lys	Thr Pro Thr	Cys Arg Leu	Ser Glu Ser	Pro Gly Pro	Gln Pro Gly	Pro Leu Lys	Glu Pro Asn	Tyr Ala Gly	Val Ala Val	1140 1160 1180
Tyr Tyr	Ala Ala Trp Asp Ala Glu	Gln	Asp	Pro	Pro	Glu	Arg	Gly	Ala	Pro	Pro	Ser	Thr	Phe	Lys		Thr	

#### Title: HER-2/NEU Fusion Proteins Inventor: Cheever et al. Attorney Docket No. CRX113US

Figure 8a (SEQ ID NO: 2)

Met	Glu	Leu	Ala	Ala	Trp	Cys	Arg	Trp	Gly	Phe	Leu	Leu	Ala	Leu	Leu	Pro	Pro	Gly	Ile	20
Ala	Gly	Thr	Gln	Val	Cys	Thr	Gly	Thr	Asp	Met	Lys	Leu	Arg	Leu	Pro	Ala	Ser	Pro	Glu	40
hr	His	Leu	Asp	Met	Leu	Arg	His	Leu	Tyr	Gln	Gly	Cys	Gln	Val	Val	Gln	Gly	Asn	Leu	60
					Pro															80
Sln	Gly	Tyr	Met	Leu	Ile	Ala	His	Asn	Gln	Val	Lys	Arg	Val	Pro	Leu	Gln	Arg	Leu	Arg	100
r1.	77-1	7 20	C1	Thr	Gln	T 011	Dho	Clu	7 an	T 17G	Т.72	717	T 011	717	77-1	T 011	7 an	7 an	7 20	120
					Val															140
					Leu															160
					Asp															180
			_		Asp					_				_	_					200
īVS	Asp	Asn	His	Cvs	Trp	Glv	Glu	Ser	Pro	Glu	Asp	Cvs	Gln	Ile	Len	Thr	Glv	Thr	Ile	220
					Ala															240
					Thr															260
_			_	_	Glu	_		_			_	_			_					280
					Pro															300
Pro	Tyr	Asn	Tyr	Leu	Ser	Thr	Glu	Val	Gly	Ser	Cys	Thr	Leu	Val	Cys	Pro	Pro	Asn	Asn	320
					Glu															340
					Leu	_	_			_	_		_	_		_		_		360
_		_	_	_	Asp	_					_	_		_					_	380
					Pro															400
Phe	Glu	Thr	Leu	Glu	Glu	Ile	Thr	Gly	Tyr	Leu	Tyr	Ile	Ser	Ala	Trp	Pro	Asp	Ser	Leu	420
Arg	Asp	Leu	Ser	Val	Phe	Gln	Asn	Leu	Arg	Ile	Ile	Arg	Gly	Arg	Ile	Leu	His	Asp	Gly	440
Ala	Tyr	Ser	Leu	Thr	Leu	Gln	Gly	Leu	Gly	Ile	His	Ser	Leu	Gly	Leu	Arg	Ser	Leu	Arg	460
Glu	Leu	Gly	Ser	Gly	Leu	Ala	Leu	Ile	His	Arg	Asn	Ala	His	Leu	Cys	Phe	Val	His	Thr	480
Val	Pro	Trp	Asp	Gln	Leu	Phe	Arg	Asn	Pro	His	Gln	Ala	Leu	Leu	His	Ser	Gly	Asn	Arg	500
Pro	Glu	Glu	Asp	Cys	Gly	Leu	Glu	Gly	Leu	Val	Cys	Asn	Ser	Leu	Cys	Ala	His	Gly	His	520
_	_	_		_	Pro			_			_					_	_			540
-				-	Arg		-	-	_			_		-			-	-	_	560
					Pro															580
3lu	Ala	Asp	Gln	Cys	Ala	Ala	Cys	Ala	His	Tyr	Lys	Asp	Ser	Ser	Ser	Сув	Val	Ala	Arg	600
					Lys															620
	_		-		Pro	-				-				-		-		-		640
_	_	_			Glu		_													660
_					Leu							_				_	_	_	_	680
Jln_	Lys	Ile	Arg	Lys	Tyr	Thr	Met	Arg	Arg	Leu	Leu	Gln	Glu	Thr	Glu	Leu	Val	Glu	Pro	700
				_	Ala								_			_				720
	_				Val		_		_						_	_			_	740
ſle			_		Asn -								_			_				760
	Pro	Lys	Ala	Asn	Lys	Glu	Ile	Leu	Asp	Glu	Ala	Tyr	Val	Met	Ala	Gly	Val	Gly	Ser	780
		_	~	-	Leu	-	~ -	- 7	$\sim$	-	ere '	~	m'		~ -	-	T T -	- T	~ -	800

#### Title: HER-2/NEU Fusion Proteins

## Inventor: Cheever et al. Attorney Docket No. CRX113US

	Figure 8b SEQ ID NO :2 Leu Met Pro Tyr Gly Cys Leu Leu Asp His Val Arg Glu His Arg Gly Arg Leu Gly Ser																			
820	Leu Met Pro Tyr Gly Cys Leu Leu Asp His Val Arg Glu His Arg Gly Arg Leu Gly Ser																			
840																				
860	Val	His	Asn	Pro	Ser	Lys	Val	Leu	Val	Asn	Arg	Ala	Ala	Leu	Asp	Arg	His	Val	Leu	Arg
880	Ala	His	Tyr	Glu	Thr	Glu	Asp	Ile	Asp	Leu	Leu	Arg	Ala	Leu	Gly	Phe	Asp	Thr	Ile	Lys
900	Phe	Arg	Arg	Arg	Leu	Ile	Ser	Glu	Leu	Ala	Met	Trp	Lys	Ile	Pro	Val	Lys	Gly	Gly	Asp
920	ar His Gln Ser Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe Gly a Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp Leu Leu Glu Lys Gly Glu g Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp															Thr				
940	_						_				_	_		_		_				
960																				
980												Arg								
1000	Pro	Ser	Ser	Pro	Gly	Leu	Asp	Glu	Asn	Gln	Ile	Val	Val	Phe	Arg	Gln	Pro	Asp	Arg	Ala
1020	Asp	Val	Leu	Asp	Gly	Met	Asp	Asp	Asp	Glu	Leu	Leu	Ser	Arq	Tyr	Phe	Thr	Ser	Asp	Met
1040	Thr	Gly	Pro	Thr	Pro	Asp	Pro	Ser	Phe	Phe	Gly	Gln	Gln	Pro	Val	Leu	Tyr	Glu	Glu	Ala
1060	Leu	Glu	Gly	Gly	Gly	Ser	Arg	Thr	Ser	Ser	Ser	Arg	His	Arg	Arg	His	Ala	Thr	Ser	Gly
1080	Glu	Ser	Pro	Ala	Leu	Pro	Ser	Arg	Pro	Pro	Gly	Glu	Glu	Ser	Pro	Glu	Leu	Gly	Leu	Thr
1100	Gln	Leu	Gly	Lys	Thr	Val	Gly	Met	Ala	Leu	Asp	Gly	Asp	Phe	Val	Asp	Ser	Gly	Ala	Gly
1120	Pro	Leu	Thr	Pro	Asp	Glu	Ser	Tyr	Arg	Gln	Leu	Pro	Ser	Leu	Asp	His	Pro	Ser	Leu	Ser
1140	Tyr	Glu	Pro	Gln	Pro	Ser	Cys	Āla	Leu	Pro	Ala	Val	Tyr	Gly	Asp	Thr	Glu	Pro	Pro	Leu
1160												Gln								
1180	Gly	Asn	Lys	Gly	Pro	Ser	Leu	Thr	Lys	Pro	Arg	Glu	Leu	Thr	Ala	Gly	Ala	Pro	Arg	Val
1200	Pro	Val	Leu	Tyr	Glu	Pro	Asn	Glu	Val	Ala	Gly	Gly	Phe	Ala	Phe	Val	Asp	Lys	Val	Val
1220	Asn	Asp	Phe	Ala	Pro	Ser	Phe	Ala	Pro	Ser	Pro	His	Pro	Pro	Ser	Ala	Thr	Gly	Glu	Arg
1240	-								-	Gln Gly		Ser Tvr				-	-	-	-	

Figure 9 (SEQ ID NO: 3)

et (	Glu	Leu	Ala	Ala	Leu	Cys	Arg	Trp	Gly	Leu	Leu	Leu	Ala	Leu	Leu	Pro	Pro	Gly	Ala	20
a	Ser	Thr	Gln	Val	Cys	Thr	Gly	Thr	Asp	Met	Lys	Leu	Arg	Leu	Pro	Ala	Ser	Pro	Glu	40
ır l	His	Leu	Asp	Met	Leu	Arg	His	Leu	Tyr	Gln	Gly	Cys	Gln	Val	Val	Gln	Gly	Asn	Leu	60
.u :	Leu	Thr	Tyr	Leu	Pro	Thr	Asn	Ala	Ser	Leu	Ser	Phe	Leu	Gln	Asp	Ile	Gln	Glu	Val	80
n (	Gly	Tyr	Val	Leu	Ile	Ala	His	Asn	Gln	Val	Arg	Gln	Val	Pro	Leu	Gln	Arg	Leu	Arg	100
е '	Val	Arg	Gly	Thr	Gln	Leu	Phe	Glu	Asp	Asn	Tyr	Ala	Leu	Ala	Val	Leu	Asp	Asn	Gly	120
p :	Pro	Leu	Asn	Asn	Thr	Thr	Pro	Val	Thr	Gly	Ala	Ser	Pro	Gly	Gly	Leu	Arg	Glu	Leu	140
.n :	Leu	Arg	Ser	Leu	Thr	Glu	Ile	Leu	Lys	Gly	Gly	Val	Leu	Ile	Gln	Arg	Asn	Pro	Gln	160
eu (	Cys	Tyr	Gln	Asp	Thr	Ile	Leu	Trp	Lys	Asp	Ile	Phe	His	Lys	Asn	Asn	Gln	Leu	Ala	180
eu '	Thr	Leu	Ile	Asp	Thr	Asn	Arg	Ser	Arg	Ala	Cys	His	Pro	Cys	Ser	Pro	Met	Суѕ	Lys	200
_		_	_	_	_					_	_			Leu		_			_	220
	_	_	_		_	_	_	_					_	Cys	_				_	240
		_	_		_		_			_				Cys						260
														Asn						280
er l	Met	Pro	Asn	Pro	Glu	Gly	Arg	Tyr	Thr	Phe	Gly	Ala	Ser	Суѕ	Val	Thr	Ala	Суѕ	Pro	300
		_				_		_		_				Cys						320
														Ser						340
	-	-	_		-					_			_	Ala						360
					_		_	_			_			Ala						380
ie i	Asp	Gly	Asp	Pro	Ala	Ser	Asn	Thr	Ala	Pro	Leu	Gln	Pro	Glu	Gln	Leu	Gln	Val	Phe	400
	Th r	T 011	C1.,	C1.1	T1.	Thr	C1.,,	П. т. т.	T 011	П.т.	T1.	Cor	71.	Trp	Dro	7 an	Cor	T 011	Dro	420
							_	_		_				Ile		_				440
-											_	_	_					_		460
						_		_			-		_	Leu	_			_		480
	_		_											Cys His						500
	-		_		_		_			-				Cys		_	_		-	520
-	_		_				_			-				Leu	_	_			-	540
														Val						560
		_				_					_			Thr	_		_			580
.a .	Asp	Gln	Cys	Val	Ala	Cys	Ala	His	Tyr	Lys	Asp	Pro	Pro	Phe	Суѕ	Val	Ala	Arg	Суѕ	600
-0	Sar	Gl v	7/a 1	Luc	Pro	Agn	Leu	Ser	Тик	Mo+	Pro	Tle	Trn	Lys	Phe	Dro	Agn	Glu	Glu	620
		_		-		-			_				-	шуs Val			-			640
_		_			_				_		Thr		Cys	653	чэр	⊐∈ u	voh	voh	пур	1 040
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#### Title: HER-2/NEU Fusion Proteins Inventor: Cheever et al. Attorney Docket No. CRX113US

Figure 10 (SEQ ID NO: 4)

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Gln	Asn	Glu	Asp	Leu	Gly	Pro	Ala	Ser	Pro	Leu	Asp	Ser	Thr	Phe	Tyr	Arg	Ser	Leu	Leu	20
Glu	Asp	Asp	Asp	Met	Gly	Asp	Leu	Val	Asp	Ala	Glu	Glu	Tyr	Leu	Val	Pro	Gln	Gln	Gly	40
Phe	Phe	Cys	Pro	Asp	Pro	Ala	Pro	Gly	Ala	Gly	Gly	Met	Val	His	His	Arg	His	Arg	Ser	60
Ser	Ser	Thr	Arg	Ser	Gly	Gly	Gly	Asp	Leu	Thr	Leu	Gly	Leu	Glu	Pro	Ser	Glu	Glu	Glu	80
Ala	Pro	Arq	Ser	Pro	Leu	Ala	Pro	Ser	Glu	Gly	Ala	Gly	Ser	Asp	Val	Phe	Asp	Gly	Asp	100
		_								-		-		-			-	_	-	
T.e.11	Glv	Met	Glv	Ala	Δla	T.vs	Glv	T.e.11	Gln	Ser	T.e.11	Pro	Thr	His	Asn	Pro	Ser	Pro	T.e.11	120
	_		_	Glu		-	_								-					140
	_	-			_										_	_	-			160
			_	Ser					_					_		_				
			_	Glu	_						_			_					-	180
Pro	Lys	Thr	Leu	Ser	Pro	Gly	Lys	Asn	Gly	Val	Val	Lys	Asp	Val	Phe	Ala	Phe	Gly	Gly	200
Ala	Val	Glu	Asn	Pro	Glu	Tyr	Leu	Thr	Pro	Gln	Gly	Gly	Ala	Ala	Pro	Gln	Pro	His	Pro	220
Pro	Pro	Ala	Phe	Ser	Pro	Āla	Phe	Asp	Asn	Leu	Tyr	Tyr	Trp	Asp	Gln	Asp	Pro	Pro	Glu	240
				Pro				-			_	-	-	_		_				260
_	_			Pro				267			-		-	-	-	-	-	4		
1				0		•		_ ,												

#### Figure 11 (SEQ ID NO: 5)

Gln	Asn	Glu	Asp	Leu	Gly	Pro	Ala	Ser	Pro	Leu	Asp	Ser	Thr	Phe	Tyr	Arg	Ser	Leu	Leu	20
Glu	Asp	Asp	Asp	Met	Gly	Asp	Leu	Val	Asp	Ala	Glu	Glu	Tyr	Leu	Val	Pro	Gln	Gln	Gly	40
Phe	Phe	Cys	Pro	Asp	Pro	Ala	Pro	Gly	Ala	Gly	Gly	Met	Val	His	His	Arg	His	Arg	•	60

#### Title: HER-2/NEU Fusion Proteins

## Inventor: Cheever et al. Attorney Docket No. CRX113US

Figure 12 (SEQ ID NO: 6)

Met Glu Leu Ala Ala Leu Cys Arg Try Gly Leu Leu Leu Leu Ala Leu Leu Pro Pro Als Ser Pro Glu Ala Ser Thr Gln Val Cys Thr Gly Thr Asy Met Lys Leu Ang Leu Pro Als Ser Pro Glu Thr His Leu Asp Met Leu Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Ana Leu Glu Leu Thr Tyr Leu Pro Thr Ash Ala Ser Leu Gln App 16 Gln Glu Val Val Gln Gly Tyr Val Leu Lle Ala His Ash Gln Val Arg Gln Val Val Gln Gly Ana Leu Gln Gly Tyr Val Leu Tle Ala His Ash Gln Val Arg Gln Val Pro Leu Gln Arg Leu Arg Gln Gly Tyr Val Leu Tle Ala His Ash Gln Val Arg Gln Val Pro Leu Gln Arg Leu Arg Gln Clu Ash Pro Leu Ann Ash Tr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu 100 The Val Arg Gly Thr Gln Leu Phe Glu Asp Ash Tyr Ala Leu Ala Val Leu Asp Ash Gly Asp Pro Leu Ash Ash Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu 110 Gln Leu Yar Gly Tyr Gln App Thr Thr Leu Lu Ty Lya Asp Ile Phe His Lya Ann Ash Glu Leu 110 Cly Tyr Gln Anp Thr Ile Leu Try Lya Asp Ile Phe His Lya Ann Ash Glu Cys Ala Gly Gly Cys Ala Asp Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Gly Gly Cys Ala Asp Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Ala Asp Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Gly Cys Ala Asp Cys Lys For Ala Leu Val Thr Tyr Ash Thr Asp Thr Phe Gly Ala Ala Gly Gly Cys Ala Asp Cys Lys For Ala Leu Val Thr Tyr Ash Thr Asp Thr Phe Gly Ala Ala Gly Gly Cys Ala Asp Gly Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Gly Asp Ser Gly Tle Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Ash Thr Asp Thr Phe Gly Ala Cys Tyr Gly Leu Gly McL Glu His Leu Arg Glu Val Cys Cys Asp Tyr Gly Leu Gly McL Glu His Leu Arg Glu Val Thr Ala Glu Asp Gly Thr Ala Glu Asp Gly Tyr Thr Phe Gly Ala Asp Ala Ash Glu Cys Cys Lys Tyr Lys Ile Phe Gly Ser Leu Val Fre Cys Ala Arg Ann Tyr Gly Leu Gly McL Glu His Leu Arg Glu Cys Lys Lys Phe Asp Gly Asp Pro Ala Ger Ash Thr Ala Gly Asp Thr Gly Glu Glu Cys Cys Pro Tyr Asp Sin Leu He Arg Ash Thr Ala Gly Ash Thr Cys Phe Gly Asp Pro Cys His Pro Gly Pro Gly Fro Thr Gln Cys Val Ass Cys Ser Gln																					
Thr His Leu Asp Met Leu Arg His Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Gln 60 Glu Leu Thr Tyr Leu Pro Thr Ash Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val Gln Gly Tyr Val Leu Ile Ala His Ash Gln Val Arg Gln Val Pro Leu Gln Arg Leu Arg 100 Gln Gly Tyr Val Leu Ile Ala His Ash Gln Val Arg Gln Val Pro Leu Gln Arg Leu Arg 100 Ileu Arg Gln Val Pro Leu Arg Gln Leu Arg Gln Gly Tyr Val Leu Arg Gln Leu Arg Gln Val Pro Leu Arg Gln Leu Arg Ash Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Tyr Lys Asp Ile Phe His Lys Ash Ash Gln Leu Ala Leu Thr Leu Ile Asp Thr Ash Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys 200 Gly Ser Arg Gly Cys Thr Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys 220 Ala Gly Cly Cys Thr Gly Fro Lys His Ser Arg Cys Leu Ala Cys Leu His Phe Ash His 260 Ser Gly Ile Cys Thr Gly Pro Lys His Ser Arg Cys Leu Ala Cys Leu His Phe Ash His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Ash Thr Asp Thr Phe Glu 280 Ser Gly Ile Cys Thr Glu Asp Gly Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 200 Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Ash Ash Ile Gln Glu Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Ash Ash Ash Ash Glu His Leu Arg Glu Val Thr Ala Glu Ash Cys Ile Cys Tyr Leu Tyr Ile Ser Ala Thr For Asp Ser Leu Pro Asp Leu Glu Glu Glu Glu Glu Glu Glu Glu Glu Gl																					l
Glu Leu Thr Tyr Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu Gln Arg Leu Arg Ilo Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ger Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Try Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys Z00 Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Acl Cys Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Sp Asn Asn Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu Ser Hot Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 300 Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asp And Gly Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Lys Cys Ser Lys Pro Cys Ala Asq Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Lys Cys Ser Lys Pro Cys Ala Asq Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Lys Cys Ser Lys Pro Cys Ala Asq Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Lys Cys Ser Lys Pro Cys Ala Asq Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Glu Cys Lys Lys Ile Phe Gly Ser Leu La Phe Leu Pro Glu Ser Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe Asp Gly Asp Pro Ala Cys Lys Hie Phe Gly Ser Leu His Asan Gly Glu Glu Thr Leu Glu Glu Ele Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro Asp Ser Leu Pro Asp Leu Ser Val Fhe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His San Gly Ala Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly Glu Cys Val Cys Fro Gly Pro Thr Gln Cys Val Asn Leu Tie His Thr Val																					l
Gln Gly Tyr Vâl Leu Ile Ala His Asn Gln Val Arg Gln Val Fro Leu Gln Arg Leu Arg  Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Into Gln Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Tyr Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Fro Met Cys Lys 200  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys Ala Arg Cys Lys Gly Fro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 300  Gly San Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Cys Ala Arg 310 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 310 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 310 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 310 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 310 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 310 Glu Val Thr Leu Glu Glu Hic Thr Gly Tyr Leu Tyr Ile Ser Ala Thr Pro Asp Ser Leu Pro 310 Asp Leu Ser Val Phe Gln Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 311 Glu Glu Cys Tyr Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn Gly Ala 312 Glu Asp Glu Cys Val Gly Leu Gly Leu Ry His Gln Ala Cys His Gln Ala Arg Ris Cys 313 Glu Gly Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val 314 Glu Glu Glu Glu Gly Leu Ala Cys His Gln Ala Cys Leu Arg 315 Glu Asp Glu Cys Val Gly Gly Key Ala Ang Fro His Gln Ala Cys His Thr Ala Asn Arg Pro 316 Gly Cys Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Pro He Cys Val Ala Arg Glu	Thr	His	Leu	Asp	Met	Leu	Arg	His	Leu	Tyr	Gln	Gly	Cys	Gln	Val	Val	Gln	Gly	Asn	Leu	l
The Val Arg Gly Thr Gln Leu Fhe Glu Asp Asn Tyr Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Fro Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Gln Leu Ysy Tyr Gln Asp Thr Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Lrp Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys 200  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys 210 Ala Ala Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Gly Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Ash His 261 Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Ala Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Cys Ser Lys Pro Cys Ala Asg 340 Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 360 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Gys Glu Lys Cys Ser Lys Pro Cys Ala Asg 360 Phe Asp Glo Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Thr Ala Cys Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Thr Ala Cys His Asp Glu Cys Tyr Leu Gli Gly Leu Thr Leu Gly Ile Arg Gly Arg Ile Leu His Asn Gly Ala 440 Tyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Typ Leu Gly Leu Arg Ser Leu Pro Asp Clu Asp Glu Cys Lin Ala Cys His Gln Ala Cys His Glu Gly Leu Arg Gly Gln Glu Cys Val Glu Glu Cys Arg Val Gly Glu Gly Leu Ac Cys Ers Gln Phe Leu Arg Gly Gln Glu Cys Val Glu Glu Cys Arg Val Gly Glu Gly Leu Ala Cys His Gln Ala Cys His Glu Glu Cys Val Glu Gly Cys His Pro Glu Cys Gln Pro Gln Asn Gly Ser Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln Arg Ala Ser Pro Leu His Arg G	Glu	Leu	Thr	Tyr	Leu	Pro	Thr	Asn	Ala	Ser	Leu	Ser	Phe	Leu	Gln	Asp	Ile	Gln	Glu	Val	80
Asp Fro Leu Asn Asn Thr Thr Pro Val Thr Gly Ala Ser Fro Gly Gly Leu Arg Glu Leu Clin Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu 11e Gln Arg Asn Fro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Tyr Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Fro Cys Ser Pro Met Cys Lys  200  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Pro Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Pen Glu Ser Het Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro  Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asp Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Gsr Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Glu Leu Gln Val The Asp Leu Ser Val Phe Gln Asn Leu Gln Val The Arg Gly Arg Tle Leu His Asn Gly Ala Hou Tyr Ser Leu Thr Leu Gln Gly Leu Gly He Ser Trp Leu Gly Leu Arg Ser Leu Pro Asp Leu Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Tyr Ser Leu Thr Leu Gln Gly Leu Ala Cys His Gln Leu Leu His Thr Val Hou Tyr Ser Leu Thr Leu Gln Gly Leu Ala Cys His Gln Leu Leu His Thr Val Hou Tyr Ser Leu Thr Leu Gln Gly Leu Ala Cys His Gln Leu Leu His Thr Ala Asn Arg Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Asn Thr His Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Glu Asp Glu Cys Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg His Cys Cys His Pro Gly For Thr Phe Tyr Arg Ser Leu Leu Gln	Gln	Gly	Tyr	Val	Leu	Ile	Ala	His	Asn	Gln	Val	Arg	Gln	Val	Pro	Leu	Gln	Arg	Leu	Arg	100
Asp Fro Leu Asn Asn Thr Thr Pro Val Thr Gly Ala Ser Fro Gly Gly Leu Arg Glu Leu Clin Leu Arg Ser Leu Thr Glu Ile Leu Lys Gly Gly Val Leu 11e Gln Arg Asn Fro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Tyr Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Fro Cys Ser Pro Met Cys Lys  200  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Pro Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Pen Glu Ser Het Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro  Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asp Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Gsr Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Glu Leu Gln Val The Asp Leu Ser Val Phe Gln Asn Leu Gln Val The Arg Gly Arg Tle Leu His Asn Gly Ala Hou Tyr Ser Leu Thr Leu Gln Gly Leu Gly He Ser Trp Leu Gly Leu Arg Ser Leu Pro Asp Leu Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Tyr Ser Leu Thr Leu Gln Gly Leu Ala Cys His Gln Leu Leu His Thr Val Hou Tyr Ser Leu Thr Leu Gln Gly Leu Ala Cys His Gln Leu Leu His Thr Val Hou Tyr Ser Leu Thr Leu Gln Gly Leu Ala Cys His Gln Leu Leu His Thr Ala Asn Arg Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Asn Thr His Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Glu Asp Glu Cys Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg His Cys Cys His Pro Gly For Thr Phe Tyr Arg Ser Leu Leu Gln																					
Gin teu Arg Ser Leu Thr Glu Tle Leu Lys Gly Gly Val Leu Ile Gin Arg Asn Pro Gln 160 Leu Cys Try Gin Asp Thr 11e Leu Try Lys Asp 11e Phe His Lys Asn Asn Gin Leu Ala 180 Leu Thr Leu Ile Asp Thr 14sn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys 200  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gin Ser Leu Thr Arg Thr Val Cys Ala Aig Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gin Cys 240 Ala Gly Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu His Phe An His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu 280 Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 300  Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln 320 Glu Val Thr Ala Glu Asp Gly Thr Gin Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 340 Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 360 Fle Glu Thr Ala Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Meh Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 400  Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro Asp Ser Leu Pro 400  Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Gly Leu Gly Arg Ile Leu His Asn Gly Ala 400  Tyr Ser Leu Thr Leu Gln Gly Leu Gly Lle Gly Ile Ser Trp Leu Gly Leu His Cys Pro 400  Glu Asp Glu Cys Val Gly Glu Gly Leu Gly Ile Ser Trp Leu Gly Leu His Arg Gly His Cys 100  Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Phe Val His Thr Val 400  Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His Gln Leu Gli Tyr Val Asn Ang Pro 500  Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Phe Val His Thr Val 400  Glu Asp Glu Cys Arg Val Leu Gln Gly Leu Ala Cys His Glu Leu Cys Phe Val His Thr Val 400  Glu Asp Glu Cys Arg Val Leu Glu Gly Leu Ala Cys His Glu Fro Gly Fro Gly Fro Gly Fro Gly Fro Gly Glu Gly Glu Gly Cys Val Asn Cys Ser Gln Pro Gly Glu Glu Cys Arg Val Leu Glu Gly Leu Ala Cys His Glu Tyr Leu Val Pro Glu Cys His Glu Cys Arg Val Leu Glu Gly Leu Glu Cys Arg Val Leu	Ile	Val	Arg	Gly	Thr	Gln	Leu	Phe	Glu	Asp	Asn	Tyr	Ala	Leu	Ala	Val	Leu	Asp	Asn	Gly	120
Leu Cys Tyr Gln Asp Thr ILe Leu Trp Lys Asp ILe Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met Cys Lys  300  Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Ala Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Asp Cys Pro Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Ash Glu Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 300  Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 340  Ala Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 361  Glu Gln Glu Phe Ala Gly Cys Lys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Veh Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn Gly Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn Gly Asp Leu Ser Val Phe Ala Gly Leu Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Afg Leu Gly Gly Lys Lys Bro His Gln Ala Leu His Asn Thr His Leu Cys Phe Val His Thr Val App Leu Gly Gly Pro Thr Gln Cys Val Asn Cys Gln Fro Glu Cys Asp Leu Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Apr Cys Gly Pro Gly Pro Gly Pro Gly Cys Gln Pro Gln Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Ala Arg Glu Cys Val Gly Gly Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg Fro Ala Asp Glu Cys Val Gly Gly Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg Gly Fro Glu Ala Asp Glu Cys Val Ala Cys His Str Yu Lys Asp Pro Pro Pro Cys Val Asp Leu Gly Pro Ala Asp Glu Cys Gln Pro Glu Cys Gln Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp Glu Cys Fro Ala Glu Gln Arg Ala Ser Fro Leu His Ser Cys Val Asp Leu Asp Asp Lys Gly Asp Leu Thr Le	Asp	Pro	Leu	Asn	Asn	Thr	Thr	Pro	Val	Thr	Gly	Ala	Ser	Pro	Gly	Gly	Leu	Arg	Glu	Leu	140
Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cyr Ala Arg Cyr Lys Gly Pro Leu Pro Thr Asp Cyr Cyr His Glu Gln Cys 240 Ala Gly Gly Cyr Ala Arg Cyr Lys Gly Pro Leu Pro Thr Asp Cyr Cyr His Glu Gln Cyr Ser Mci Pro Lys His Ser Asp Cyr Leu Ala Cyr Leu His Phe Ash His 260 Ser Gly 11e Cyr Glu Leu His Cyr Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Gly Ala Ser Mcr Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cyr Val Thr Ala Cyr Pro 300 Try Asn Tyr Leu Ser Thr Asp Val Gly Ser Cyr Thr Glu Cyr Ala Arg Gly Val Thr Ala Cyr Pro 300 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cyr Glu Lyr Cyr Ser Leu His Asn Gln 340 Val Cyr Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr As Glu Arg 340 Val Cyr Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 360 Hie Glu Glu Phe Ala Gly Cyr Lyr Lyr Leu Gyr Gre Leu His Asn Gln 360 He Glu Wal Thr Ash Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 400 His Leu Glu Glu Fre Ala Arg Glu Val Arg Ala Val Thr Ser Ala Arg 340 Val Cyr Tyr Gly Leu Glu Glu Fre He Gly Ser Leu Arg Glu Glu He Glu His Ash Glu Thr Leu Glu Glu Leu Glu Glu Fre Gly Ser Leu Fre Glu Ser Val Phe Gln Ash Leu Gln Val Leu Arg Glu Arg He Leu His Asn Glu Arg Glu Thr Leu Glu Glu Leu Gln Val Phe 400 Hyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Trp Leu Gly Leu His Thr Val 400 Hyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Trp Leu Gly Leu Arg Gly His Cyr Cyr Gly Pro Gly Pro Thr Gln Cyr Val Asn Cyr Ser Gln Phe Leu Arg Gly Gln Glu Cyr Arg Gly Gln Gly Leu Gly Gln Gly Leu Ala Cyr His Gln Ala Leu His Thr Ala Asn Arg Pro 500 Hyr Gly Fro Gly Pro Gly Pro Thr Gln Cyr Val Asn Cyr Ser Gln Pro Leu His Thr Ala Asn Arg Fro 500 Hyr Gly Fro Gly Pro Gly Fro Gly Gln Gly Leu Ala Cyr His Gln Ala Leu Leu His Thr Ala Asn Arg Fro 600 Hyr Gly Ala Cyr Gln Fro Glu Cyr Gln Fro Gln Asn Gly Ser Val Thr Cyr Phe Gly Pro Glu Gly Ala Cyr Gln Fro Glu Cyr Gln Gln Gly Leu Gly Asn Cyr Ser Gln Asn Gly Ser Fro Leu Asp Gly Gln Glu Cyr Arg Glu Glu Tyr Leu Val Pro Gln Gln Gly Gly Asp Leu	Gln	Leu	Arg	Ser	Leu	Thr	Glu	Ile	Leu	Lys	Gly	Gly	Val	Leu	Ile	Gln	Arg	Asn	Pro	Gln	160
Ala Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys 240 Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys 240 Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu 280 Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 300 Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro 300 Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln 340 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg 340 Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 360 Ile Gln Glu Phe Ala Gly Cys Lys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 400 His Leu Gly Ser Lys Pro Hasp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Glr Pro Glu Gln Leu Gln Val Phe 400 Asp Leu Gly Ser Gly Leu Ala Cys His Gln Pro Glu Glu Leu Gln Val Phe 400 His Leu Gly Glu Leu Gln Glu Phe Ala Gly Leu Gly Ile Ser Fre Leu Gly Leu Arg Ser Leu Arg Glu 440 His Leu Gly Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val 460 His Cys Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val 460 Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr Ala Asn Arg Pro 500 Fro Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys 540 Val Glu Glu Cys Arg Val Leu Gln Gly Leu Ala Cys His Gln Ala Leu Leu His Thr Ala Asn Arg Pro 500 Fro Gly Pro Gly Pro Glu Cys Wal Ala Cys Ala His Tyr Lys Asp Pro Pro Pro Pro Pro Asp Glu Glu Glu Cys 540 Ala Asp Gln Cys Val Ala Cys Ala His Tyr Lys Asp Pro Pro Pro Pro Pro Gly Pro Glu Cys Ala Arg His Cys Fro Asp Glu Gly Ala Cys Ala His Tyr Lys Asp Pro Pro Pro Pro Pro Pro Asp Glu Glu Glu Gly Ala Cys Ala His Tyr Lys Asp Pro Pro Pro Pro Pro Pro Asp Glu Gly Pro 640 Gly Ala Cys Gln Pro Glu Cys Pro Asp Leu Ser Tyr H	Leu	Cys	Tyr	Gln	Asp	Thr	Ile	Leu	Trp	Lys	Asp	Ile	Phe	His	Lys	Asn	Asn	Gln	Leu	Ala	180
Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu 280 Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Ala Gly Val Thr Ala Gly Asp Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Cys Ala And Cys Cys Cys Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala And 340 Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 360 Ile Gln Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn Gly Ala Hyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu 460 Hyr Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Asp Leu Gly Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Asp Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr Ala Asn Arg Pro Val Gly Gly Cys Arg Val Leu Gln Gly Leu Arg Ser Glu Pro Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly His Cys Stop Leu Pro Cys His Pro Glu Cys Gln Fro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Cys Arg Ala Leu Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys Ser Cys Leu Pro Cys His Pro Glu Cys Gln Fro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Glu Cys Arg Ala Cys Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys Ser Cys Pro Ala Glu Gly Arg His Cys Ser Cys Val Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Pro Pro Glu Gly Ala Gly Gly Arg Ala Glu Glu Pro Cys P	Leu	Thr	Leu	Ile	Asp	Thr	Asn	Arg	Ser	Arg	Ala	Cys	His	Pro	Cys	Ser	Pro	Met	Cys	Lys	200
Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His 260 Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr Phe Glu 280 Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Ala Gly Val Thr Ala Gly Asp Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Cys Ala And Cys Cys Cys Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala And 340 Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser Ala Asn 360 Ile Gln Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn Gly Ala Hyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu 460 Hyr Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Asp Leu Gly Ser Gly Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val Asp Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr Ala Asn Arg Pro Val Gly Gly Cys Arg Val Leu Gln Gly Leu Arg Ser Glu Pro Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg Gly His Cys Stop Leu Pro Cys His Pro Glu Cys Gln Fro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Cys Arg Ala Leu Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys Ser Cys Leu Pro Cys His Pro Glu Cys Gln Fro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Glu Cys Arg Ala Cys Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys Ser Cys Pro Ala Glu Gly Arg His Cys Ser Cys Val Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Pro Pro Glu Gly Ala Gly Gly Arg Ala Glu Glu Pro Cys P	G1					0.1	0.1			0.1					_	m)		m)	** 1	~	000
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#### Attorney Docket No. CRX113US

Figure 13 (SEQ ID NO: 7)

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Me+	Glu	T <sub>i</sub> e 11	Ala	د ۱ ۵	Leu	Cve	Ara	Trn	G1 17	Leu	T,e11	Leu	د ۱ ∆	T.e.ii	Leu	Pro	Pro	G1 17	Ala	20
					Cys															40
					Leu		_		_		_		_							60
			_		Pro	_			_		_	_					_			80
					Ile															100
		_	~ 1	_,	~ 7		_,	~ 1												100
					Gln															120 140
					Thr Thr															160
					Thr															180
	_	_		_	Thr			_	_	_				_						200
_		_	_	_	Gly					_	_					_			_	220
					Arg															240
					Gly															260 280
			_		Leu Glu		_													300
501	ricc	110	ASII	110	Oru	Oly	лгg	тут	1111	TIIC	Oly	лта	JCI	Cys	vai	1111	ліа	Cys	110	300
					Thr															320
					Asp	_			_	_		_	_		_		_		_	340
	_	_	_		Gly					_			_							360
					Gly															380
Pne	Asp	СТА	Asp	Pro	Ala	ser	Asn	Thr	Ата	Pro	ьеи	GIN	Pro	GIU	GIN	ьеи	GIN	vai	Pne	400
Glu	Thr	Leu	Glu	Glu	Ile	Thr	Gly	Tyr	Leu	Tyr	Ile	Ser	Ala	Trp	Pro	Asp	Ser	Leu	Pro	420
Asp	Leu	Ser	Val	Phe	Gln	Asn	Leu	Gln	Val	Ile	Arg	Gly	Arg	Ile	Leu	His	Asn	Gly	Ala	440
_					Gln	_		_			_		_		_			_		460
					Ala															480
Pro	Trp	Asp	Gln	Leu	Phe	Arg	Asn	Pro	His	Gln	Ala	Leu	Leu	His	Thr	Ala	Asn	Arg	Pro	500
Glu	Asp	Glu	Cys	Val	Gly	Glu	Gly	Leu	Ala	Cys	His	Gln	Leu	Cys	Ala	Arg	Gly	His	Cys	520
					Thr															540
					Val															560
					Glu															580
Ala	Asp	Gln	Суѕ	Val	Ala	Суѕ	Ala	His	Tyr	Lys	Asp	Pro	Pro	Phe	Суѕ	Val	Ala	Arg	Cys	600
					Pro															620
_		_			Cys				_				_		_		_	_	_	640
					Gln															660
					Ser															680
ьеи	val	Asp	Ala	GLU	Glu	тyr	ьеи	∨a⊥	rro	GIN	GIN	СΤΆ	rne	rne	суѕ	rro	Asp	rro	АТА	700
Pro	Gly	Ala	Gly	Gly	Met	Val	His	His	Arg	His	Arg		•	714	_	_				

#### Attorney Docket No. CRX113US

Figure 14 (SEQ ID NO: 8)

Met	Glu	Leu	Ala	Ala	Trp	Cvs	Arq	Trp	Glv	Phe	Leu	Leu	Ala	Leu	Leu	Pro	Pro	Glv	Ile	20
					_	_	_	Thr	_									_		40
								Leu												60
			-			_		Ala	_		_	-					-			80
			_					Asn							_					100
J111	Oly	TYL	ricc	шеи	110	AIG	111.5	ASII	OIII	vai	цуз	лгу	vai	110	шси	OIII	Arg	шси	Arg	100
-1-	T7 - 7	7	Q1	m1	G1	Ŧ	DI.	01	7	<b>T</b>		7.1.	<b>T</b>	77-	T7 - 7	<b>T</b>	70	70	7	100
		_	_					Glu	_	-	_						-		_	120
-			-					Ser			_	_				_		_		140
			_					Ile		-	_	_				_	_			160
		_	_		_			Leu	_	_	_			_	_					180
Ala	Pro	Val	Asp	Ile	Asp	Thr	Asn	Arg	Ser	Arg	Ala	Суѕ	Pro	Pro	Суѕ	Ala	Pro	Ala	Cys	200
_	_			_	_	_		Ser			_	_					_			220
								Lys												240
-			_	-		_		Lys			-	-			-					260
		_		-				Cla						-			_			280
lu	Ser	Met	His	Asn	Pro	Glu	Gly	Arg	Tyr	Thr	Phe	Gly	Ala	Ser	Суѕ	Val	Thr	Thr	Cys	300
	_		_					Val	_		_				_					320
						-	-	Thr		_	-		-	_		-		-		340
Arg	Val	Суѕ	Tyr	Gly	Leu	Gly	Met	Glu	His	Leu	Arg	Gly	Ala	Arg	Ala	Ile	Thr	Ser	Asp	360
Asn	Val	Gln	Glu	Phe	Asp	Gly	Cys	Lys	Lys	Ile	Phe	Gly	Ser	Leu	Ala	Phe	Leu	Pro	Glu	380
Ser	Phe	Asp	Gly	Asp	Pro	Ser	Ser	Gly	Ile	Ala	Pro	Leu	Arg	Pro	Glu	Gln	Leu	Gln	Val	400
								Gly	_		_				_		_			420
_	-							Leu	_			_	-	_				-	-	440
	_							Leu						_		-			_	460
		_		_				Ile		_					-					480
/al	Pro	Trp	Asp	Gln	Leu	Phe	Arg	Asn	Pro	His	Gln	Ala	Leu	Leu	His	Ser	Gly	Asn	Arg	500
		0.7		~	0.7	_	<u> </u>	~ .	_		~			_	~			<u> </u>		500
								Gly												520
-	-	-		-				Суѕ			-					_	_			540
-					_		_	Lys				_							_	560
_			_				_	Gln								_		_		580
lu	Ala	Asp	Gln	Суѕ	Ala	Ala	Cys	Ala	His	Tyr	Lys	Asp	Ser	Ser	Ser	Суѕ	Val	Ala	Arg	600
7	D	C	C1 -	TT. 7	т	Desir	7)	T	C	m	Mode	D	T7 -	m	T	m	Dec	7	Clas	600
								Leu												620
	_		_			_		Ile		_				Суѕ		Asp	Leu	Asp	GLu	640
٩rg	Gly	Cys	Pro	Ala	Glu	Gln	Arg	Ala	Ser	Pro	Val	Thr	Phe		654					

Attorney Docket No. CRX113US

#### FIGURE 15a (SEQ ID NO:9)

_		_		gcc Ala 5	_	_	_						_		_	48
			_	gcg Ala	_				_				_	_	_	96
_				gcc Ala	_					_	_	_		_		144
				tgc Cys												192
_				gcc Ala	_	_			_	_	_		_			240
_				ctc Leu 85		_						_	_		_	288
_		_		att Ile		_			_				_			336
_	_	_		cta Leu	_			_	_	_						384
				tcc Ser												432
				ttg Leu				_	_		_				_	480
	_		_	gac Asp 165	_		_		_	_				_		528
	_	_	_	ctc Leu		_		_			_			_	_	576
		_		ccg Pro	_	_	_			_	_				_	624

#### Attorney Docket No. CRX113US

Figure 15b (SEQ ID NO: 9)

		_	_	_	_	_	_	_		gtc Val	_	_			_	672
_	_	_	_			_			_	tgc Cys 235	_			_	_	720
										gac Asp						768
				_			_		_	cac His	_		_	_	_	816
										ccc Pro						864
Tyr										tgt Cys						912
										tgc Cys 315						960
										tgt Cys						1008
										atg Met						1056
gtg Val										gag Glu						1104
_				_	_	_		_	_	gag Glu	_		_		_	1152
	_				_	_		_		gag Glu 395	_					1200
		_	_							tac Tyr			_		_	1248

Figure 15c (SEQ ID NO: 9)

_	_	_		_		_	gtc Val		_		_		_			1296
							gcc Ala 440									1344
							cgc Arg									1392
_	_						acc Thr			_				_		1440
		_	_				aac Asn	_			_	_				1488
_					_		tgt Cys					_	_	_		1536
_	_	_	_	_			tgc Cys 520							_	_	1584
							cgg Arg									1632
							agg Arg									1680
_	_	_				_	cag Gln		_						_	1728
		_		_	_	_	tgt Cys		_	_	_			_	_	1776
			_		_	_	tgc Cys 600		_					_		1824
		_				_	ttt Phe		_				_	_	_	1872

Figure 15d (SEQ ID NO: 9)

	t tgc o Cys															1	920
62	_	110	110	21011	630	1111	1110	DCI	Cyb	635	710P	ПСИ	710P	710P	640		
	c tgc y Cys		_		_	_	_	_		_	_					1	968
	g gtg a Val															2	016
	c ctc e Leu		_	_		_	_	_			_		_	_		21	064
_	a ctg g Leu 690	_	_	_	_		_			_	_			_		2:	112
_	g atg a Met 5			_		_	_			_			_		_	2.	160
_	g aag g Lys		_						_				_		_	2:	208
	c atc y Ile															2:	256
	a gtg s Val	_		_						_			_			23	304
	c gaa p Glu 770															23	352
	t ctg u Leu 5			_	_			_		_	_			_		2	400
	g ccc t Pro															2	448
	g ggc u Gly		_	_	_	_			_	_	_		_	_		2	496

#### Figure 15e (SEQ ID NO: 9)

											agg Arg					2544
			_	_	_	_				_	aaa Lys 860			_		2592
											gag Glu					2640
		_				_		_		_	gag Glu				_	2688
					_	_	_			_	tat Tyr					2736
		_	_				_				gat Asp				_	2784
				_	_	_	_	_			cgg Arg 940	_		_		2832
		_			_	_		_		_	gtc Val		_		_	2880
											ttg Leu					2928
											gtc Val					2976
_				_	_		_	Āsp	_		c tto r Phe		r Ai	-	ca ctg er Leu	3024
	gag Glu 1010	Asp					y As				at go sp Al					3069
_	gta Val 1025	Pro		-			e Pł	_	-	_	ac co sp Pi	-	_			3114

Figure 15f (SEQ ID NO: 9)

_	ggg Gly 1040		_	_		cac His 1045			_	_					3159
_	ggc Gly 1055			_	_	aca Thr 1060			_				gaa Glu		3204
	gcc Ala 1070					ctg Leu 1075							ggc Gly		3249
	gta Val 1085					ctg Leu 1090									3294
	agc Ser 1100					gac Asp 1105		_			_			_	3339
	gac Asp 1115			_		ctg Leu 1120					_			_	3384
	ccc Pro 1130	_		_	_	ccc Pro 1135	_		_				cag Gln		3429
	gtt Val 1145					cct Pro 1150					ggc Gly 1155				3474
_	gcc Ala 1160	_		_		gcc Ala 1165		_	_			_	act Thr		3519
	cca Pro 1175					gtc Val 1180									3564
	gcc Ala 1190							_			_			_	3609
_	cct Pro 1205	_				cct Pro 1210		_		_		_		_	3654
	ctc Leu 1220					cag Gln 1225									3699

Figure 15g (SEQ ID NO: 9)

	_	Thr			Gly	aca Thr 1240	Pro	_	_	Ğlu			3744
Leu	ggt Gly 1250	Leu	Āsp	Val	Pro		tga						3768

## Title: HER-2/NEU Fusion Proteins Inventor: Cheever et al.

#### Attorney Docket No. CRX113US

#### FIGURE 16a (SEQ ID NO: 10)

1		~~~~~~+~~	+ < > + < > + < < < > < < < < < < < < <	~~+~~~~~	+~~+~~~~	~~~~~++~~+
	ccgggccgga					
	cctcgccctc					
	gttgcggctc				_	
	ctgtcaggta					
	attcctgcag					
	gcgcgtccca					
	tgccctggct					
	cagaacccca					
	aggagttttg					
	cgtcttccgc					
601	ctgtccacct	tgtgcccccg	cctgcaaaga	caatcactgt	tggggtgaga	gtccggaaga
661	ctgtcagatc	ttgactggca	ccatctgtac	cagtggttgt	gcccggtgca	agggccggct
721	gcccactgac	tgctgccatg	agcagtgtgc	cgcaggctgc	acgggcccca	agcattctga
781	ctgcctggcc	tgcctccact	tcaatcatag	tggtatctgt	gagctgcact	gcccagccct
841	cgtcacctac	aacacagaca	cctttgagtc	catgcacaac	cctgagggtc	gctacacctt
901	tggtgccagc	tgcgtgacca	cctgccccta	caactacctg	tctacggaag	tgggatcctg
961	cactctggtg	tgtcccccga	ataaccaaga	ggtcacagct	gaggacggaa	cacagcgttg
1021	tgagaaatgc	agcaagccct	gtgctcgagt	gtgctatggt	ctgggcatgg	agcaccttcg
1081	aggggcgagg	gccatcacca	gtgacaatgt	ccaggagttt	gatggctgca	agaagatctt
	tgggagcctg					
	gctgaggcct				_	
	catctcagca					
	teggggaegg				_	_
	ctcgctgggg	_		_		
	cgcccatctc					_
	ggccctgctc					
	ctgtaactca					
	ctgcagtcat					
	ccccgggag					
	aaacagctca					
	caaggactcg					
	catgcccatc					
	_					_
	cacccactcc					
	ggtgacattc	_			_	
	cgttggaatc					
	gctgcaggaa					
	tcagatgcgg					
	ttttggcact					
	ggctatcaag					
	agcgtatgtg					-
	gacatccaca		-	_		
	ccgagaacac					
	caaggggatg					
	tgtgctagtc					
	ggacattgat					
	attggaatct					
2761	gactgtgtgg	gagctgatga	cttttggggc	caaaccttac	gatggaatcc	cagcccggga
	gatccctgat					
	tgtctacatg					
2941	ggagttggtg	tcagaatttt	cacgtatggc	gagggacccc	cagcgttttg	tggtcatcca
	gaacgaggac					
	agatgatgac					
3121	cttctccccg	gaccctaccc	caggcactgg	gagcacagcc	catagaaggc	accgcagctc
	gtccaccagg					
	ccccagatct					
	ggcaatgggg					

Title: HER-2/NEU Fusion Proteins Inventor: Cheever et al. Attorney Docket No. CRX113US

#### FIGURE 16b (SEQ ID NO: 10)

3361	gcggtacagc	gaggacccca	cattacctct	gccccccgag	actgatggct	atgttgctcc
3421	cctggcctgc	agcccccagc	ccgagtatgt	gaaccaatca	gaggttcagc	ctcagcctcc
3481	tttaacccca	gagggtcctc	tgcctcctgt	ccggcctgct	ggtgctactc	tagaaagacc
3541	caagactctc	tctcctggga	agaatggggt	tgtcaaagac	gtttttgcct	tcgggggtgc
3601	tgtggagaac	cctgaatact	tagtaccgag	agaaggcact	gcctctccgc	cccacccttc
3661	tcctgccttc	agcccagcct	ttgacaacct	ctattactgg	gaccagaact	catcggagca
3721	ggggcctcca	ccaagtaact	ttgaagggac	ccccactgca	gagaaccctg	agtacctagg
3781	cctggatgta	cctgtatgag	acgtgtgcag	acgtcctgtg	ctttcagagt	ggggaaggcc
3841	tgacttgtgg	tctccatcgc	cacaaagcag	ggagagggtc	ctctggccac	attacatcca
3901	aaacaaacaa	ctctaccagg	aacctgcccc	gaggaacctt	teettaetae	ttgaa

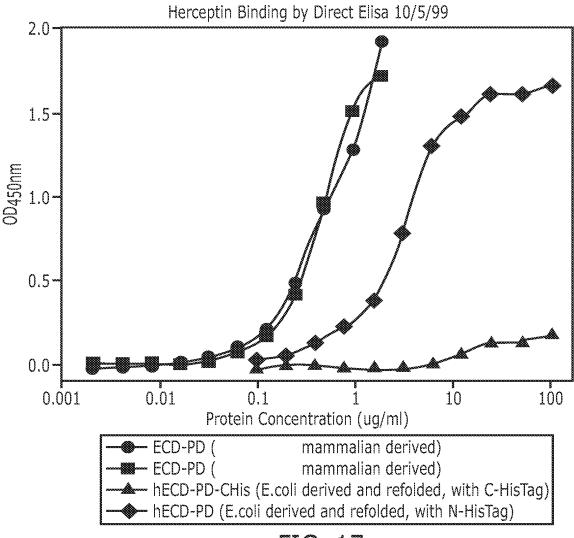
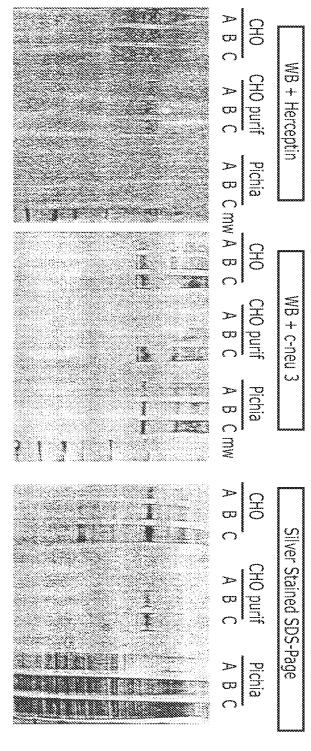


FIG. 17

# Comparaison of Her2new ECD-PD Expression in CHO-K1 (S/SF) and Pichia (Non reducing conditions)



Legend: CHO; A, B,  $C = 2.5 \mu l / 5 \mu l / 10 \mu l$ 

CHO purif; A, B, C = 125ng/ 250ng/ 500ng Pichia; A, B, C = 2,5 $\mu$ l/ 5 $\mu$ l/ 10 $\mu$ l from a 1/30 dilution of OD 120

atggagetgg eggeetggtg eegttggggg tteeteeteg eeeteetgte eeeeggagee

#### Attorney Docket No. CRX113US

FIGURE 19a (SEQ ID NO:11)

60

2640

2820

2940

3000 3060

3120

gcgggtaccc	aagtgtgtac	cggtaccgac	atgaagttgc	gactccctgc	cagtcctgag	120
acccacctgg	acatgcttcg	ccacctctac	cagggctgtc	aggtggtgca	gggcaatttg	180
gagcttacct	acctgcccgc	caatgccagc	ctctcattcc	tgcaggacat	ccaggaagtc	240
cagggataca	tgctcatcgc	tcacaaccga	gtgaaacacg	tcccactgca	gaggttgcgc	300
atcgtgagag	ggactcagct	ctttgaggac	aagtatgccc	tggctgtgct	agacaaccga	360
		caccgccgcc				420
ctgcagcttc	gaagtctcac	agagatcttg	aagggaggag	ttttgatccg	tgggaaccct	480
cagctctgct	accaggacat	ggttttgtgg	aaggatgtcc	tccgtaagaa	taaccagctg	540
gctcctgtcg	acatggacac	caatcgttcc	cgggcctgtc	caccttgtgc	cccaacctgc	600
aaagacaatc	actgttgggg	tgagagtcct	gaagactgtc	agatcttgac	tggcaccatc	660
tgtactagtg	gctgtgcccg	gtgcaagggc	cggctgccca	ctgactgttg	ccatgagcag	720
tgtgctgcag	gctgcacggg	tcccaagcat	tctgactgcc	tggcctgcct	ccacttcaat	780
catagtggta	tctgtgagct	gcactgcccg	gccctcatca	cctacaacac	agacaccttc	840
		gggtcgctac				900
ccctacaact	acctctccac	ggaagtggga	tcctgcactc	tggtctgtcc	cccgaacaac	960
caagaggtca	cagctgagga	cggaacacag	cggtgtgaga	aatgcagcaa	gccctgtgct	1020
		catggagcac				1080
aatatccagg	agtttgctgg	ctgcaagaag	atctttggga	gcctggcatt	tttgccggag	1140
agctttgatg	ggaacccctc	ctccggcgtt	gccccactga	agccagagca	tctccaagtg	1200
ttcgaaaccc	tggaggagat	cacaggttac	ctatacattt	cagcatggcc	agagagcttc	1260
caagacctca	gtgtcttcca	gaaccttcgg	gtcattcggg	gacggattct	ccatgatggt	1320
gcttactcat	tgacgttgca	aggcctgggg	attcactcac	tggggctacg	ctcactgcgg	1380
gagctgggca	gtggattggc	tctcattcac	cgcaacaccc	atctctgctt	tgtaaacact	1440
		ccggaacccg				1500
		tgagggcttg				1560
		ccagtgtgtc				1620
		atggaagggg				1680
		gtgtcagcct				1740
		ttgtgcccac				1800
		agacctctcc				1860
		ccccatcaac	_			1920
		gagagccagc				1980
		catagtggtg				2040
		catgcgtagg				2100
		gcccaaccag				2160
		tgggtcagga				2220
atcccagatg	gggagaacgt	gaaaatcccc	gtggccatca	aggtgttgag	ggaaaacaca	2280
tctcctaaag	ctaacaaaga	aatcctagat	gaagcgtacg	tcatggctgg	tgtgggttct	2340
		gggcatctgc				2400
		tctggaccat				2460
		tgttcagatt				2520
cggcttgttc	acagggacct	agctgcccga	aacgtgctag	tcaagagtcc	caaccacgtc	2580

aagattaccg acttcgggct ggcacggctg ctggacattg atgagactga ataccatgca

gatgggggca aggtgcccat caagtggatg gcattggaat ctattctcag acgccggttc actcatcaga gtgatgtgtg gagctatggt gtgactgtgt gggagctgat gacctttggg 2760 gccaaacctt acgatgggat cccagctcgg gagatccctg atttgctgga gaagggagaa

cgcctacctc agcctccaat ctgcaccatc gacgtctaca tgatcatggt caaatgttgg atgattgact ccgaatgtcg cccgagattc cgggagttgg tatcagaatt ctcccgtatg

gcaagggacc cccagcgctt tgtggtcatc cagaacgagg acttaggccc ctccagcccc

atggacagca cettetaceg tteactgetg gaggatgatg acatggggga getggtegat gctgaagagt acctggtacc ccagcaggga ttcttctccc cagaccctgc cctaggtact

gggagcacag cccaccgcag acaccgcagc tcgtcggcca ggagtggcgg tggtgagctg 3180 acactgggcc tggagcctc ggaagaagag ccccccagat ctccactggc tccctccgaa 3240 qqqqctqqct ccqatqtqtt tqatqqtqac ctqqcaqtqq qqqtaaccaa aqqactqcaq 3300 agectetete cacatgacet cageceteta cageggtaca gtgaggatee cacattacet 3360

Title: HER-2/NEU Fusion Proteins Inventor: Cheever et al. Attorney Docket No. CRX113US

#### FIGURE 19b (SEQ ID NO:11)

ctgccccccg	agactgatgg	ctacgttgct	cccctggcct	gcagccccca	gcccgagtat	3420
gtgaaccagc	cagaggttcg	gcctcagtct	cccttgaccc	cagagggtcc	teegeeteee	3480
atccgacctg	ctggtgctac	tctagaaaga	cccaagactc	tctctcctgg	gaaaaatggg	3540
gttgtcaaag	acgtttttgc	ctttgggggt	gctgtggaga	accctgaata	cctagcaccc	3600
agagcaggca	ctgcctctca	gccccaccct	tctcctgcct	tcagcccagc	ctttgacaac	3660
ctctattact	gggaccagaa	ctcatcggag	cagggtcctc	caccaagtac	ctttgaaggg	3720
acccccacta	cagagaaccc	tgagtaccta	gacctagata	taccaatata	a	3771

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#### Figure 20a (SEQ ID NO:14)

	Glu	Leu	Ala	_	Trp	Cys	Arg	Trp	_	Phe	Leu	Leu	Ala		Leu
1 Ser	Pro	Gly	Ala	5 Ala	Gly	Thr	Gln		10 Cys	Thr	Gly	Thr		15 Met	Lys
Leu	Arg	Leu 35	20 Pro	Ala	Ser	Pro	Glu 40	25 Thr	His	Leu	Asp	Met 45	30 Leu	Arg	His
Leu	Tyr 50		Gly	Cys	Gln	Val 55		Gln	Gly	Asn	Leu 60		Leu	Thr	Tyr
Leu 65	Pro	Ala	Asn	Ala	Ser 70	Leu	Ser	Phe	Leu	Gln 75		Ile	Gln	Glu	Val 80
Gln	Gly	Tyr	Met	Leu 85	Ile	Ala	His	Asn	Arg 90	Val	Lys	His	Val	Pro 95	Leu
	_		Arg 100			_	_	105					110	_	_
		115	Val		_		120	_			_	125			
	130		Gly	_		135		_		_	140				_
145			Glu		150					155					160
			Tyr	165					170					175	
			Leu 180				_	185	_			_	190	_	
		195	Cys				200					205			
	210		Asp			215					220				
225		_	Cys	_	230	_				235	_	_			240
			Gly	245					250					255	
			Asn 260			_		265				_	270		
		275	Asn		_		280					285			_
_	290		Phe	_		295	_				300		_		_
305			Glu		310					315					320
			Thr	325					330					335	
			Ala 340					345					350		
		355	Ala				360					365			
_	370		Phe	_		375					380			_	_
385	Pro	ser	Ser	СТХ	390	АІА	Pro	ьeu	гда	95 395	GIU	н1S	ьeu	GIN	Val 400

#### Title: HER-2/NEU Fusion Proteins

## Inventor: Cheever et al. Attorney Docket No. CRX113US

#### Figure 20b (SEQ ID NO:14)

Phe	Glu	Thr	Leu	Glu 405	Glu	Ile	Thr	Gly	Tyr 410	Leu	Tyr	Ile	Ser	Ala 415	Trp
Pro	Glu	Ser	Phe 420	Gln	Asp	Leu	Ser	Val 425	Phe	Gln	Asn	Leu	Arg 430	Val	Ile
Arg	Gly	Arg 435	Ile	Leu	His	Asp	Gly 440	Ala	Tyr	Ser	Leu	Thr 445	Leu	Gln	Gly
Leu	Gly 450	Ile	His	Ser	Leu	Gly 455	Leu	Arg	Ser	Leu	Arg 460	Glu	Leu	Gly	Ser
Gly 465	Leu	Ala	Leu	Ile	His 470	Arg	Asn	Thr	His	Leu 475	Cys	Phe	Val	Asn	Thr 480
Val	Pro	Trp	Asp	Gln 485	Leu	Phe	Arg	Asn	Pro 490	His	Gln	Ala	Leu	Leu 495	His
	Gly		500					505	_			_	510		_
	Ser	515					520					525			
Cys	Val 530	Asn	Cys	Ser	Gln	Phe 535	Leu	Arg	Gly	Gln	Glu 540	Cys	Val	Glu	Glu
Cys 545	Arg	Val	Trp	Lys	Gly 550	Leu	Pro	Arg	Glu	Tyr 555	Val	Arg	Gly	Lys	His 560
_	Leu		_	565			_		570					575	
_	Tyr	_	580			_		585			_		590	_	_
	Ser	595					600					605			
	Ser 610					615					620				
625	Pro				630					635					640
	Gly			645					650					655	
	Thr		660					665					670		
_	Ile	675		_	_	_	680		_		_	685	_		
_	Arg 690					695					700				
705	Ala				710					715					720
	Arg			725					730					735	
	Gly		740					745					750		
Ile	Lys	Val 755	Leu	Arg	Glu	Asn	Thr 760	Ser	Pro	Lys	Ala	Asn 765	Lys	Glu	Ile
Leu	Asp 770	Glu	Ala	Tyr		775					780				
Arg 785			Gly		790					795		Leu			800
Leu	Met	Pro	Tyr	Gly 805	Cys	Leu	Leu	Asp	His 810	Val	Arg	Glu	His	Arg 815	Gly

#### Title: HER-2/NEU Fusion Proteins

## Inventor: Cheever et al. Attorney Docket No. CRX113US

#### Figure 20c (SEQ ID NO:14)

Arg hed dry	Ser Gl 820	n Asp	Leu	Leu	Asn 825	Trp	Cys	Val	Gln	Ile 830	Ala	Lys
Gly Met Ser 835	Tyr Le	ı Glu	Glu	Val 840	Arg	Leu	Val	His	Arg 845	Asp	Leu	Ala
Ala Arg Asn 850	Val Le	ı Val	Lys 855	Ser	Pro	Asn	His	Val 860	Lys	Ile	Thr	Asp
Phe Gly Leu 865	Ala Ar	g Leu 870	Leu	Asp	Ile	Asp	Glu 875	Thr	Glu	Tyr	His	Ala 880
Asp Gly Gly	Lys Va 88		Ile	Lys	Trp	Met 890	Ala	Leu	Glu	Ser	Ile 895	Leu
Arg Arg Arg	Phe Th 900	d His	Gln	Ser	Asp 905	Val	Trp	Ser	Tyr	Gly 910	Val	Thr
Val Trp Glu 915	Leu Me	Thr	Phe	Gly 920	Ala	Lys	Pro	Tyr	Asp 925	Gly	Ile	Pro
Ala Arg Glu 930			935					940				
Pro Pro Ile 945	Cys Th	950	Asp	Val	Tyr	Met	Ile 955	Met	Val	Lys	Cys	Trp 960
Met Ile Asp	Ser Gl 96	_	Arg	Pro	Arg	Phe 970	Arg	Glu	Leu	Val	Ser 975	Glu
Phe Ser Arg	Met Al 980	a Arg	Asp	Pro	Gln 985	Arg	Phe	Val	Val	Ile 990	Gln	Asn
Glu Asp Leu 995	Gly Pr	Ser	Ser	Pro 1000		Asp	Ser	Thr	Phe 1005	_	Arg	Ser
Leu Leu Glu 1010	Asp As	Asp	Met 1015	_	Glu	Leu	Val	Asp 1020		Glu	Glu	Tyr
Leu Val Pro 1025	Gln Gl	n Gly 1030		Phe	Ser	Pro	Asp 1035		Ala	Leu	Gly	Thr 1040
01 0 ml	71 ~ Ui	s Ara	Ara	His	Ara	Sar	Ser	Ser	Ala	Ara	Sar	Glv
Gly Ser Thr	10	15	_		_	1050	)			_	1055	5
Gly Gly Glu	10 Leu Th 1060	15 c Leu	Gly	Leu	Glu 1065	105( Pro	) Ser	Glu	Glu	Glu 1070	1055 Pro )	Pro
_	10 Leu Th 1060 Leu Al	15 c Leu	Gly	Leu	Glu 1065 Gly	105( Pro	) Ser	Glu	Glu	Glu 1070 Val	1055 Pro )	Pro
Gly Gly Glu Arg Ser Pro	10 Leu Th 1060 Leu Al	15 Leu a Pro	Gly Ser	Leu Glu 1080 Thr	Glu 1065 Gly	105( Pro S Ala	Ser Gly	Glu Ser	Glu Asp 1085 Ser	Glu 107( Val	1055 Pro ) Phe	Pro Asp
Gly Gly Glu  Arg Ser Pro 107 Gly Asp Leu	10 Leu Th 1060 Leu Al 5 Ala Va	Leu Pro	Gly Ser Val 1095 Gln	Leu Glu 1080 Thr	Glu 1065 Gly ) Lys	1050 Pro S Ala Gly	Ser Gly Leu	Glu Ser Gln 1100 Asp	Glu Asp 1085 Ser	Glu 107( Val Leu	1055 Pro ) Phe Ser	Pro Asp Pro
Gly Gly Glu  Arg Ser Pro 107  Gly Asp Leu 1090  His Asp Leu	Leu Th 1060 Leu Al 5 Ala Va	15 Leu Pro LGly Leu 111( Asp	Gly Ser Val 1095 Gln	Leu Glu 1080 Thr S	Glu 1065 Gly ) Lys	1050 Pro Ala Gly Ser	Ser Gly Leu Glu 1115 Pro	Glu Ser Gln 1100 Asp	Glu Asp 1085 Ser ) Pro	Glu 107( Val 5 Leu Thr	1055 Pro ) Phe Ser Leu	Pro Asp Pro Pro 1120 Pro
Gly Gly Glu  Arg Ser Pro 107  Gly Asp Leu 1090  His Asp Leu 1105	10 Leu Th 1060 Leu Al 5 Ala Va Ser Pr Glu Th	45 Leu Pro Gly Leu 1110 Asp	Gly Ser Val 1095 Gln Gly	Leu Glu 1080 Thr Arg	Glu 1065 Gly ) Lys Tyr	1050 Pro Ala Gly Ser Ala 1130 Val	Ser Gly Leu Glu 1115 Pro	Glu Ser Gln 1100 Asp Leu	Asp 1085 Ser ) Pro	Glu 1070 Val Leu Thr	Phe Ser Leu Ser 1135	Pro Asp Pro Pro 1120 Pro
Gly Gly Glu  Arg Ser Pro 107  Gly Asp Leu 1090  His Asp Leu 1105  Leu Pro Pro	Leu Th 1060 Leu Al 5 Ala Va Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr	45 Leu Pro LGly Leu 1110 Asp 25 LAsn	Gly Ser Val 1095 Gln Gly Gln	Leu Glu 1080 Thr Arg Tyr	Glu 1065 Gly ) Lys Tyr Val Glu 1145 Ile	1050 Pro Ala Gly Ser Ala 1130 Val	Ser Gly Leu Glu 1115 Pro Arg	Glu Ser Gln 1100 Asp Leu Pro	Asp 1085 Ser Pro Ala	Glu 1070 Val Leu Thr Cys Ser 1150 Ala	1055 Pro Phe Ser Leu Ser 1135 Pro	Pro Asp Pro Pro 1120 Pro Leu
Gly Gly Glu  Arg Ser Pro 107  Gly Asp Leu 1090  His Asp Leu 1105  Leu Pro Pro  Gln Pro Glu  Thr Pro Glu	Leu Th 1060 Leu Al 5 Ala Va Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr 5	45 c Leu a Pro l Gly b Leu 1110 c Asp 25 l Asn	Gly Ser Val 1095 Gln Gly Gln Pro	Leu Glu 1080 Thr Arg Tyr Pro Pro 1160 Pro	Glu 1065 Gly ) Lys Tyr Val Glu 1145 Ile	1050 Pro Ala Gly Ser Ala 1130 Val Arg	Ser Gly Leu Glu 1115 Pro Arg	Glu Ser Gln 1100 Asp Leu Pro Ala	Asp 1085 Ser Pro Ala Gln Gly 1165 Val	Glu 107( Val ) Leu Thr Cys Ser 115( Ala	1055 Pro Phe Ser Leu Ser 1135 Pro Thr	Pro Asp Pro Pro 1120 Pro Leu Leu
Gly Gly Glu  Arg Ser Pro 107  Gly Asp Leu 1090  His Asp Leu 1105  Leu Pro Pro  Gln Pro Glu Thr Pro Glu 115  Glu Arg Pro	Leu Th 1060 Leu Al 5 Ala Va Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr 5 Lys Th	45 Leu  A Pro  LGly  Leu  1110  Asp  25  L Asn  Pro	Gly Ser Val 1095 Gln Gly Gln Pro Ser 1175 Ala	Leu Glu 1080 Thr Arg Tyr Pro Pro 1160 Pro	Glu 1065 Gly ) Lys Tyr Val Glu 1145 Ile )	1050 Pro Ala Gly Ser Ala 1130 Val Arg	Ser Gly Leu Glu 1115 Pro Arg Pro Asn	Glu Ser Gln 1100 Asp Leu Pro Ala Gly 1180 Glu	Asp 1085 Ser Pro Ala Gln Gly 1165 Val	Glu 1070 Val Leu Thr Cys Ser 1150 Ala Val	1055 Pro Phe Ser Leu Ser 1135 Pro Thr	Pro Asp Pro 1120 Pro Leu Leu Asp
Gly Gly Glu  Arg Ser Pro 107  Gly Asp Leu 1090  His Asp Leu 1105  Leu Pro Pro  Gln Pro Glu  Thr Pro Glu 115  Glu Arg Pro 1170  Val Phe Ala	Leu Th 1060 Leu Al 5 Ala Va Ser Pr Glu Th 11 Tyr Va 1140 Gly Pr 5 Lys Th Phe Gl	45 Leu A Pro L Gly C Asp L Asn D Pro L Leu T Gly Asn D Pro C Leu T Gly T Ser	Gly Ser Val 1095 Gln Gly Gln Pro Ser 1175 Ala	Leu Glu 1080 Thr Tyr Pro Pro 1160 Pro Val	Glu 1065 Gly ) Lys Tyr Val Glu 1145 Ile ) Gly	1050 Pro Ala Gly Ser Ala 1130 Val Arg Lys Asn	Ser Gly Leu Glu 1115 Pro Arg Pro Asn Pro 1195 Ser	Glu Ser Gln 1100 Asp Leu Pro Ala Gly 1180 Glu	Asp 1085 Ser Pro Ala Gln Gly 1165 Val	Glu 1070 Val Leu Thr Cys Ser 1150 Ala Val Leu	1055 Pro Phe Ser Leu Ser 1135 Pro Thr Lys Ala	Pro Asp Pro 1120 Pro Leu Leu Asp Pro 1200 Pro

#### Figure 20d (SEQ ID NO:14)